

DAUGA -- 09/886,395
Client/Matter: 012237-0281180

REMARKS

Reconsideration and allowance of the above-identified Application in view of the above amendments and the following remarks are respectfully requested.

Claims 1-12 and 15-25 are pending. No new claims are added herein.

The drawings are objected to as allegedly failing to show the recited digital image acquisition device downstream from the polarization analyzer. Applicant respectfully traverses the objection. Applicant submits that the term "downstream" is well understood in the optical arts as indicating further along an optical path of the optical system. For example, the Examiner's attention is directed to US Pat. No. 6,684,017 which describes optical fibers as being upstream and downstream from one another. (see top of col. 9). In the present application, Figure 2 illustrates this relationship. Figure 2 shows a digital camera 13 that is disposed along an optical path extending from the surface under inspection (9) and passing first through an optical analyzer element (14, 19) before reaching the digital camera. Thus, the digital camera is "downstream" from the optical analyzer element. In fact, this term is clearly understood by the Examiner in that each rejection makes use of it in exactly the same context. Applicant respectfully requests that the objection be withdrawn.

Claim 12 is objected to as appearing to be redundant to claim 11. Claim 11 has been amended to correct a clerical error and to differentiate it from claim 12. Claim 12 has further been amended to clarify it, and not to alter its scope.

Claims 1-5, 9, 10, 15-20, 24 and 25 stand rejected under 35 U.S.C. §102(e) as being anticipated by Shiratori et al. Applicant respectfully traverses this rejection. Each of the independent claims 1, 9, 15 and 16 recite either an analyzer or the act of analyzing polarization. Shiratori fails to teach or suggest a polarization analyzer. The Office Action points to the polarization filter 25 of Shiratori as being a polarization analyzer, apparently relying on Applicant's remarks of 7/3/03. (see Office Action, p. 2, para. 2). Applicant respectfully disagrees with this interpretation of Applicant's remarks and of the term analyzer.

A polarization analyzer is not simply a polarization filter as described in Shiratori, and Applicant has never contended that it is. To the contrary, Applicant's remarks in the October 31, 2002 amendment make clear that a polarization analyzer is an apparatus that allows measurements of multiple polarization states. Further, the specification of the present application supports this understanding (see, e.g., p. 8, ln. 31 et. seq. indicating that a polarization analyzer is capable of producing different polarization effects). A polarization

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filter, without more, merely preferably passes a particular polarization state. As described in Shiratori, a static polarization filter 25 is used simply to filter diffuse reflected light. (Col. 8, ll. 20-24). It cannot be used to alternately pass differently polarized light so as, for example, to include brightness information or color information in a separable manner as described in the specification of the present invention. (Page 10, ll. 15-25). In fact, the operation of Shiratori depends on the use of a static filter rather than an analyzer; the second filter 25 should be aligned with the first filter 22 in order to properly cut off the diffuse reflected light. Any change in the filter 25 would interfere with the measurements Shiratori is teaching as the object of his invention.

Because Shiratori fails to teach or suggest the use of a polarization analyzer, Applicant respectfully requests that the rejection of claims 1-5, 9, 10, 15-20, 24 and 25 under 35 U.S.C. §102(e) be withdrawn.

Claims 1-3, 5-10, 15-18 and 20-23 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wolff, et al. Applicant respectfully traverses the rejection. Wolff merely teaches a method and apparatus for determining an electrical conductivity of an object under inspection by measuring a phase retardance of the reflected light. Wolff fails to teach or suggest a processing unit configured and arranged to calculate a brightness and an intensity of a plurality of points of the surface from pixels of at least two images of the surface. In particular, Wolff fails to teach or suggest anything about a measurement of brightness of the surface. As described in the specification of the present application, the measurement of both brightness and intensity allows for the measurement to reflect the manner in which the human eye observes contrast using brightness and color information. (See, e.g., p. 11, ln. 31- p. 12, ln. 1). Because Wolff fails to teach or suggest the use of a processing unit configured and arranged to calculate a brightness and an intensity of a plurality of points of the surface from pixels of at least two images of the surface, Applicant respectfully requests that the rejection under 35 U.S.C. §102(e) based on Wolff be withdrawn.

Claims 1-4, 9, 10 and 15-19 stand rejected under 35 U.S.C. §102(e) as being anticipated by Hielscher, et al. Applicant respectfully traverses this rejection. Hielscher, as with Shiratori, merely teaches a static polarization filter downstream of the object under inspection. There is no teaching or suggestion anywhere in Hielscher that the polarization filter is capable of alternatively transmitting different polarization states as recited in the independent claims. Furthermore, Heilscher fails to teach or suggest a processing unit configured and arranged to calculate a brightness and an intensity of a plurality of points of the surface from pixels of at least two images of the surface. In particular, Heilscher does not

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appear to make any mention at all of brightness information to be derived from his imaging techniques. Because Heilscher fails to teach or suggest the use of a processing unit configured and arranged to calculate a brightness and an intensity of a plurality of points of the surface from pixels of at least two images of the surface, Applicant respectfully requests that the rejection under 35 U.S.C. §102(e) based on Heilscher be withdrawn.

Claims 4, 11, 12 and 19 stand rejected under 103(a) based on combinations depending primarily on Wolff and Heilscher. Because, as noted above, Wolff and Heilscher fail to teach or suggest the subject matter of the claims from which these claims depend, and because Doan and Mersch fail to overcome the deficiencies of Wolff and Heilscher, Applicant submits that these claims are patentable over the asserted combinations. Applicant respectfully requests that the rejections of claims 4, 11, 12 and 19 be withdrawn.

All objections and rejections having been addressed, Applicant respectfully submits that the claims are in condition for allowance and respectfully request a notice to that effect.

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Respectfully submitted,
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